



13th Annual Report To Congress

November 2023

High-Priority Evidence Gaps for Clinical Preventive Services

SUBMITTED BY:

Dr. Michael J. Barry, Chair

Dr. Wanda K. Nicholson, Vice Chair

Dr. Michael Silverstein, Vice Chair

**ON BEHALF OF THE
U.S. PREVENTIVE SERVICES
TASK FORCE**



EXECUTIVE SUMMARY

The U.S. Preventive Services Task Force (USPSTF or Task Force) is an independent, volunteer panel of national experts in prevention, primary care, and evidence-based medicine. The Task Force makes evidence-based recommendations about clinical preventive services that can be delivered or referred from a primary care setting to improve the health of people nationwide. The Task Force assesses the strength of the evidence and the balance of benefits and harms of a preventive service in people without signs or symptoms, including screening tests, behavioral counseling, and preventive medications.

Each year, Congress charges the USPSTF to provide a report that identifies gaps in the scientific evidence base and recommends areas for future research. In some cases, clinical preventive services have been well studied, but there are important evidence gaps that prevent the Task Force from making recommendations for specific populations. The USPSTF recognizes that disparities persist in healthcare delivery and health outcomes based on age, race and ethnicity, sexual orientation, gender identity, and social determinants of health, such as economic and social conditions. Addressing these historical inequities through research can help the Task Force issue recommendations to overcome economic, social, and other barriers to health, supporting the reduction of preventable health disparities.

In this 13th Annual Report to Congress, the USPSTF calls for more research on three key topics related to mental health and wellness—anxiety disorders, depression, and suicide risk prevention—to improve health across the lifespan. These issues are especially important to study in underserved populations and high-risk groups.

Where More Research Is Needed Related to Promoting Mental Health and Wellness for All Ages and Specific High-Risk Populations

In this report, the USPSTF calls attention to high-priority research gaps from its recent recommendations related to anxiety disorders, depression, and suicide risk for people of all ages and particularly for groups of people at increased risk. The Task Force has a long-standing commitment to, and specific methods for, evaluating the evidence for clinical preventive services and making recommendations that promote health and prevent chronic conditions, including interventions focused on mental health and wellness. Anxiety disorders and depression are common mental health conditions that can have a substantial impact on an individual's life and their family members, and suicide is tragically a leading cause of death in the United States. Also, the impact of the COVID-19 pandemic has exacerbated already widespread morbidity relating to mental health and wellness.

Although mental health conditions can affect anyone, some groups of people are at higher risk because of their sex, gender, age, race, ethnicity, socioeconomic status, or other factors. The USPSTF is committed to mitigating the health inequities that prevent many people from fully benefiting from preventive services. Racism of all kinds affects the health of individuals and results in policies and practices, including healthcare access and delivery, that can lead to inequities in health on a population level. The USPSTF recognizes that race, ethnicity, and gender are essentially social rather than biological constructs. However, they are also often important predictors of health risk. The USPSTF is committed to helping reverse the negative impacts of racism, gender-based discrimination, bias, and other sources of health inequities, and their effects on health and wellness, throughout its work. As part of this effort, the Task Force works to improve health equity by highlighting research gaps that are reflective of the populations who are most affected by these conditions.

The Task Force recognizes that to achieve the benefit of screening for mental health disorders and reduce disparities and associated morbidity, it is important that persons who screen positive are evaluated further for diagnosis and, if appropriate, are provided or referred for evidence-based care. By highlighting the research gaps regarding screening tools for use in the primary care setting, collaborative care approaches, barriers to establishing adequate systems of care, and solutions to these barriers, the Task Force hopes that future research can fill these gaps and lead to improvements in mental health outcomes.

Future research in asymptomatic persons in the primary care setting in the following areas may help fill gaps and may result in new recommendations that will help improve the mental health and wellness of people nationwide.

Screening for Anxiety, Depression, and Suicide Risk in Children and Adolescents

- The Task Force is calling for more research on the benefits and harms of screening for suicide risk in all children and adolescents and of screening for anxiety disorders and depression in younger children.
- For anxiety disorders, more research is needed on the benefits of screening tests that look for a specific anxiety disorder vs. tests that look for several anxiety disorders.
- For depression, more research is needed to better understand the effects of screening for depression on long-term health outcomes.
- For suicide risk, more research is needed on the effectiveness of screening tests and treatments.
- For all conditions, evidence is lacking on screening and treatment based on specific demographics such as sex, race, ethnicity, sexual orientation, and gender identity.

Screening for Anxiety Disorders, Depression, and Suicide Risk in Adults

- The Task Force is calling for more research on the benefits and harms of screening for anxiety disorders in adults age 65 years or older and screening for suicide risk in all adults.
- For anxiety disorders, more research is needed on the accuracy of screening tools used in the primary care setting, especially in older adults and pregnant and postpartum people; barriers to systems of care; and the prevalence of anxiety disorders.
- For depression, more research is needed on the barriers to followup care and on implementation programs that report on how many patients are screened, referred, and treated.
- For suicide risk, more research is needed on what screening tools should be used, the accuracy of including one question on suicide risk within a depression screening, treatments for individuals identified through screening, and whether and how individuals identified through screening might be helped before they act.
- For all conditions, evidence is lacking on the most effective tools and treatments for screening high-risk populations, including Hispanic/Latino and Native American/Alaska Native populations.

Table of Contents

| | |
|--|-----------|
| Executive Summary | 1 |
| I. Introduction..... | 5 |
| II. Background..... | 5 |
| III. Clinical Preventive Services Where More Research Is Needed: Promoting Mental Health and Wellness for All Ages and Specific High-Risk Populations..... | 10 |
| IV. The USPSTF in 2023 and Other Highlights | 21 |
| V. The USPSTF in 2024..... | 25 |
| Appendices..... | 28 |
| A. Members of the USPSTF (2023)..... | 29 |
| B. USPSTF Dissemination and Implementation Partner Organizations..... | 32 |
| C. Federal Liaisons to the USPSTF..... | 32 |
| D. USPSTF Final Recommendations Published October 2022–September 2023..... | 33 |
| E. Prior Annual Reports to Congress on High-Priority Evidence Gaps for Clinical Preventive Services (2011–2022)..... | 35 |

Partnership With GLMA: Reaching LGBTQ+ Communities

Individuals in the LGBTQ+ community are at higher risk for experiencing mental health conditions.

- LGBTQ+ individuals are **more than twice as likely** as heterosexual men and women to have a mental health disorder.ⁱ
- LGBTQ+ youth are **more than four times as likely** to attempt suicide than their peers.ⁱⁱ
- Every **45 seconds** one LGBTQ+ youth (13-24) **attempts suicide**.ⁱⁱⁱ

GLMA: Health Professionals Advancing LGBTQ+ Equality is helping confront this problem. For more than 40 years ago, GLMA has ensured health equity for lesbian, gay, bisexual, transgender, and queer (LGBTQ+) people, and equality for LGBTQ+ health professionals in their work and learning environments. GLMA does so by utilizing the scientific expertise of its diverse members to inform and drive advocacy, education, and research.

Promoting LGBTQ+ Research

There is a vital need for more LGBTQ+ specific research. The existing body of evidence is underfunded and underpowered to understand the unique needs of the LGBTQ+ population. It is crucial that future research be more representative of LGBTQ+ communities to better deliver care to this population and meet their specific health needs. GLMA is urgently calling for more research in this area and promoting LGBTQ+ research by:

- Working with researchers to recruit LGBTQ+ individuals to participate in their research studies.
- Providing guidance on how to make research projects designed around LGBTQ+ communities more inclusive.
- Stewarding the Lesbian Health Fund, which helps to improve the health and well-being of LGBTQ+ women and girls through funding scientific research.

Providing Healthcare Professionals With Knowledge to Provide Care

To achieve greater benefits of screening it's essential to address the growing need for healthcare professionals that can provide high quality and culturally competent care to LGBTQ+ patients. GLMA helps to do this by providing access to a variety of educational resources including continuing medical education courses, webinars, conferences, and other resources on LGBTQ+ health. GLMA also offers health professional trainings about the issues facing the LGBTQ+ community to support them in discussing these issues with their patients and others.

Partnering With the Task Force

The partnership between GLMA and the Task Force provides healthcare professionals with evidence-based and comprehensive guidance on mental health, such as the new recommendations on screening for anxiety disorders, and other conditions that affect LGBTQ+ communities to enhance the health, wellness, and quality of life of their patients.

ⁱAmerican Psychiatric Association. Diversity & Health Equity Education: Lesbian, Gay, Bisexual, Transgender and Queer/Questioning. <https://www.psychiatry.org/psychiatrists/diversity/education/lgbtq-patients>

ⁱⁱThe Trevor Project (2021) Facts About LGBTQ Youth Suicide. <https://www.thetrevorproject.org/resources/article/facts-about-lgbtq-youth-suicide/>

ⁱⁱⁱThe Trevor Project (2021) Facts About LGBTQ Youth Suicide. <https://www.thetrevorproject.org/resources/article/facts-about-lgbtq-youth-suicide/>

INTRODUCTION

The U.S. Preventive Services Task Force (USPSTF or Task Force) is an independent, volunteer group of national experts in prevention, primary care, and evidence-based medicine. Since its inception in 1984, the Task Force has made evidence-based recommendations about clinical preventive services that can be delivered or referred from primary care to improve the health of people nationwide (e.g., by improving quality of life and prolonging life). These recommendations include screening tests, behavioral counseling, and preventive medications.

The mission of the USPSTF is to improve the health of people nationwide by making evidence-based recommendations about clinical preventive services.

The purpose of this report is to update Congress and the research community about high-priority evidence gaps in clinical preventive services identified by the Task Force in 2022 and 2023 related to promoting mental health and wellness for all ages and high-risk populations.

BACKGROUND

Clinical preventive services have tremendous value in improving the health of the Nation. When provided appropriately, these preventive services can identify diseases, including mental health conditions, at early stages when they are more treatable, and reduce a person's risk for future illness or mortality. However, some clinical preventive services can fail to provide the expected benefit or even cause harm. To make informed decisions, healthcare professionals, patients, and families need access to trustworthy, objective information about the benefits and harms of evidence-based clinical preventive services.

The Task Force makes recommendations to help primary care clinicians, patients, and families decide together whether a particular preventive service is right for an individual's needs. Task Force recommendations:

- Apply only to people without recognized signs or symptoms of the disease or health condition
- Focus on screening to identify disease early and interventions to prevent the onset of disease
- Address services offered in the primary care setting or services to which patients can be referred by primary care professionals

Since 1998, the Agency for Healthcare Research and Quality (AHRQ) has been authorized by Congress to convene the Task Force and to provide ongoing scientific, administrative, and dissemination support. AHRQ funds Evidence-based Practice Centers (EPCs), which are academic or research organizations that work with the Task Force to develop research plans and conduct the evidence reviews that the Task Force uses to inform its recommendations.

Who Serves on the Task Force?

The USPSTF is an independent group of national experts in prevention and evidence-based medicine who represent the diverse disciplines of primary care, including behavioral health, family medicine, geriatrics, internal medicine, nursing, obstetrics and gynecology, and pediatrics. The Task Force is made up of 16 volunteer members who are appointed to serve 4-year terms, led by a chair and two vice chairs (see **Appendix A** for current members).

How Does the Task Force Minimize Potential Conflicts of Interest?

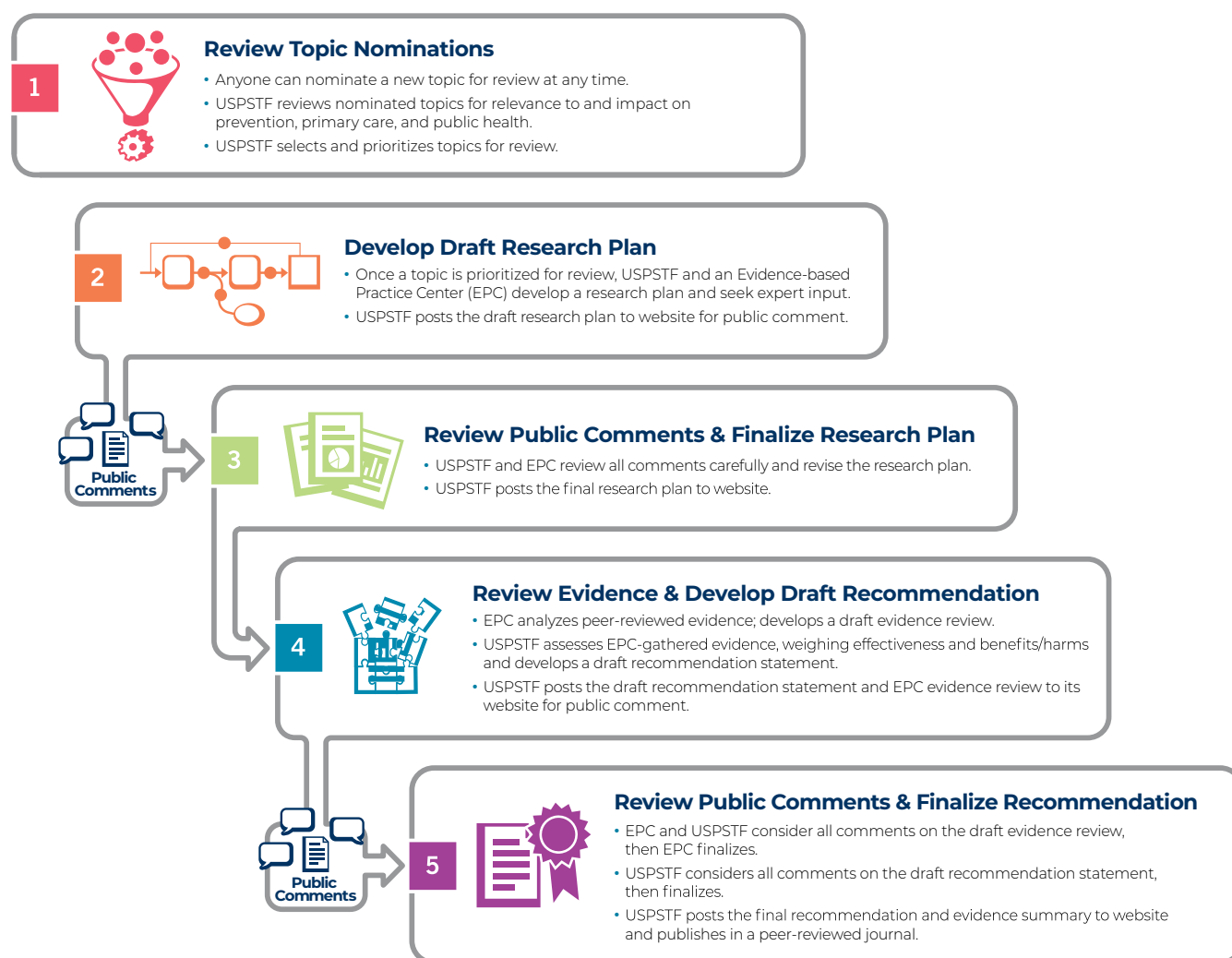
To ensure that USPSTF recommendations are balanced, independent, and objective, the Task Force has a long-standing and rigorous conflict of interest assessment and disclosure process.¹ The process for each member begins prior to appointment, and potential conflicts of interest are also reviewed at least three times each year.

How Does the Task Force Make Recommendations?

The Task Force's recommendations are based on a review of the best available research on the potential benefits and harms of the preventive service. The USPSTF does not conduct research studies but rather reviews and assesses published research. The Task Force follows a multistep process when developing each of its recommendations and obtains public input throughout the recommendation development process (see **Figure 1**).

Figure 1. Steps the USPSTF Takes to Make a Recommendation

USPSTF Recommendations Development



When the Task Force reviews the evidence, it considers the benefits and harms of the preventive service for the overall population, as well as for specific segments of the U.S. population that may be disproportionately affected by a condition or that may benefit differently from the preventive service.²

Potential benefits of preventive services may include helping people stay healthy throughout their lifetime, improving quality of life, preventing disease, and prolonging life. Potential harms may include inaccurate test results, harms from invasive followup tests, harms from treatment of a disease or condition, diagnosis of a condition that would never have caused symptoms or problems in a person’s lifetime (also known as “overdiagnosis”) or receiving treatment when it is not needed or may not actually improve health (also known as “overtreatment”).

The Task Force assigns each of its recommendations a letter grade (A, B, C, or D) or issues an “I statement” based on the certainty of the evidence and the balance of benefits and harms of the preventive service (see **Table 1**).

Table 1. Meaning of USPSTF Grades

| Grade | Definition |
|-------------|--|
| A | The USPSTF recommends the service. There is high certainty that the net benefit is substantial |
| B | The USPSTF recommends the service. There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial. |
| C | The USPSTF recommends selectively offering or providing this service to individual patients based on professional judgment and patient preferences. There is at least moderate certainty that the net benefit is small. |
| D | The USPSTF recommends against the service. There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits. |
| I Statement | The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the service. Evidence is lacking, of poor quality, or conflicting, and the balance of benefits and harms cannot be determined. |


How Does the Task Force Engage the Public, Partners, Stakeholders, and Topic Experts in Developing Recommendations?

For each topic, the USPSTF actively seeks input from the public, its partners, stakeholders, and topic experts, including medical specialists—such as radiologists, oncologists, cardiologists, and surgeons. This ensures a focus on important clinical prevention topics for practicing clinicians and that the evidence relevant to each recommendation is considered.³ At each step of the recommendation development process, the USPSTF solicits and reviews input. Anyone—the public, USPSTF partners, stakeholders, and topic experts—can nominate a new topic or propose an update to an existing topic, as well as submit comments on all Task Force draft materials (research plans, evidence reviews, and recommendation statements).

- **The Public.** All draft materials are posted on the Task Force website for a 4-week public comment period. The Task Force reviews and considers all comments as it finalizes the materials. Any organizations or individuals interested in being informed of Task Force activities can subscribe to the U.S. Preventive Services Task Force email list to receive announcements on opportunities to provide public comment on draft materials, notifications of when final materials are posted or published, and information about other Task Force activities.
- **Partners.** The Task Force works with national organizations that represent primary care clinicians (including organizations that represent specific populations working to advance health equity), consumers, and other primary care stakeholders and health-related Federal agencies. These organizations and agencies provide input on the recommendations as they are being developed and help the Task Force disseminate the final recommendations (see **Appendices B** and **C** for a list of partners).
- **Stakeholders.** The Task Force identifies relevant stakeholder groups for each topic and contacts their leadership, inviting them to comment on the drafts during the public comment periods. Stakeholder groups include national primary care, specialty, patient, advocacy, and other organizations with expertise and interest in a specific topic.
- **Topic experts.** The Task Force seeks input from different types of topic experts, including medical specialists such as radiologists, oncologists, cardiologists, and surgeons. In addition, the EPC team that conducts the evidence reviews for each topic always includes content experts who work with the EPC during the systematic evidence review. Expert reviewers provide input on the evidence supporting the draft recommendation statement.

Where Can I Find More Information About the Task Force?

The Task Force website (www.uspreventiveservicestaskforce.org) contains more information about the Task Force and its methods for developing recommendations, including engaging with experts, partners, and the public. More details are available on the “Task Force at a Glance” and “Methods and Processes” pages.



“The Office of Disease Prevention coordinates and promotes prevention research at the National Institutes of Health (NIH) in concert with NIH’s Institutes and Centers. When the USPSTF issues its recommendations and identifies gaps in the evidence base on specific topics, the NIH responds. We support the USPSTF’s commitment to highlighting important evidence gaps in mental health, particularly for those at increased risk, and we are focused on advancing research opportunities and making investments that prioritize closing these gaps.”

David M. Murray, Ph.D.
Associate Director for Prevention
Director, Office of Disease Prevention
National Institutes of Health

CLINICAL PREVENTIVE SERVICES WHERE MORE RESEARCH IS NEEDED: PROMOTING MENTAL HEALTH AND WELLNESS FOR ALL AGES AND SPECIFIC HIGH-RISK POPULATIONS

The U.S. Congress has charged the Task Force with identifying gaps in research and recommending priority areas that deserve further examination each year. This includes calling attention to areas where evidence is lacking for populations that are disproportionately affected by health conditions.

There are two ways that the USPSTF highlights evidence gaps in its recommendation statements:

- **Issuing an “I statement.”** The USPSTF issues an “I statement” when the current evidence is lacking, of poor quality, or conflicting. When the evidence is insufficient, the USPSTF is unable to assess the balance of benefits and harms of the preventive service.
- **Describing the “Research Needs and Gaps.”** In all recommendation statements, the USPSTF points out where gaps in the evidence remain in a section called “Research Needs and Gaps.”

For studies to adequately address gaps in the evidence, researchers need to use methods that are consistent with the USPSTF’s criteria for assessing study quality, validity, and applicability. Studies addressing these gaps should do the following:

- Examine preventive services conducted in the **primary care setting** or that are referable from primary care
- Compare outcomes for people **who do and do not receive the preventive service**
- Include populations **without recognized signs or symptoms** of the condition
- Adopt a **rigorous study design** appropriate for the question, such as a randomized, controlled trial or a high-quality observational study
- Be **free of significant sources of bias**, such as high dropout rates among participants, biased assessment of outcomes, or heterogeneity in outcome measures

To develop recommendations that improve the health of people nationwide, the USPSTF needs high-quality evidence about the benefits and harms of the preventive service and about the ways specific population groups are affected. For some preventive services and for certain populations, lack of scientific evidence limits the ability of the Task Force to make recommendations. This is because particular populations are frequently not well represented in health research. Some examples include:

- Specific age groups, including children, adolescents, and older adults
- Racial and ethnic groups historically underrepresented in research and disproportionately affected by health conditions, such as Black, Hispanic/Latino, Native American/Alaska Native, and Asian American and Pacific Islander people
- People who do not identify as heterosexual, with their birth sex, or both
- Individuals disproportionately affected by genetic, environmental, and social risk factors, such as financial strain or lack of access to affordable care

The Task Force is prioritizing topics that are likely to advance health equity and is calling for more research for some preventive services where the lack of scientific evidence limits its ability to make recommendations. In turn, this can help inform future recommendations, improve access to and use of preventive services, reduce disparities in healthcare, and increase health equity.

Focusing on Promoting Mental Health and Wellness for All Ages and Specific High-Risk Populations

For this 2023 report, the USPSTF calls attention to high-priority research gaps focusing on promoting mental health and wellness for all ages and specific high-risk populations. Mental health is characterized on a continuum of optimal wellbeing to unhealthy illness and includes a person's emotional, psychological, and social well-being and affects how they think, feel, and act. Mental health conditions are common and affect many Americans and their families. More than 1 in 5 adults in the United States live with a mental illness,⁴ and more than 1 in 5 youth between the ages of 13 and 18 years currently have a seriously debilitating mental illness or will at some point during their life.⁵

Mental health and wellness are important for all ages, from childhood to adolescence and into adulthood, but this is especially true in some high-risk populations. Risk factors, including genetic, biological, and environmental factors, can contribute to mental health disorders. Prevalence rates can also vary based on age, race and ethnicity, sexual orientation, gender identity, and social determinants of health, such as economic and social conditions. Underserved communities often bear a disproportionately high burden of disability resulting from mental health disorders.⁶

Mental health is equally as important as physical health for overall health and well-being. Mental illness can affect an individual's physical health, placing them at greater risk of chronic health conditions like diabetes and heart disease. Similarly, the presence of chronic conditions can also increase the risk for mental illness.⁷ Promoting mental health and wellness through screening can be an effective strategy for improving overall health outcomes.

The Task Force calls attention to high-priority research gaps related to mental health and wellness, recognizing that mental health needs increased during the COVID-19 pandemic and the disruption in access to primary care and mental health services may have affected the ability to screen for mental health conditions. The USPSTF has several recommendations related to screening for mental health conditions, including anxiety disorders, depression, and suicide risk in children, adolescents, and adults.



Partnership With the American Psychological Association: A Focus on Mental Health

About the American Psychological Association (APA)

Founded in 1892, the APA:

- Serves as the leading scientific and professional organization representing psychology in the United States.
- Represents more than 146,000 researchers, educators, clinicians, consultants, and students.

The APA works to advance psychology to benefit society and improve lives. By working with the USPSTF, the APA helps to promote positive mental health in the broader population.

Confronting the Demand for Mental Health Practitioners

In the past few years, the demand for mental health services has skyrocketed. The APA is addressing this challenge by:

- Expanding the number of clinical internship training programs.
- Encouraging people of all races, ethnicities, and other diverse backgrounds to enter doctoral psychology programs to diversify those in the pipeline.
- Increasing the number of professionals who can work in psychology by providing an accreditation process for programs that offer master's degree in psychology.

Addressing the Health of the Entire Population

The APA is broadening its approach to promoting mental well being and reaching and treating people with mental health conditions. APA encourages psychologists to adopt a population health approach to their work, which focuses on improving the health of entire populations, including individuals within those populations. Using this approach when providing care to patients, healthcare professionals would take into account factors that influence health status, such as income, education, culture, and environment to reduce risk and prevent problems across populations. Implementing a population health approach will help to improve the health of more people and reduce health inequities.

Partnering With the Task Force


Through its partnership with the Task Force, APA raises awareness of mental health conditions and emphasizes the importance of integrating mental health within primary care. Task Force recommendations can also serve as a resource for healthcare professionals to use when starting the conversation about mental health with their patients.

Table 2. Key Research Gaps for Clinical Preventive Services—Promoting Mental Health and Wellness in All Ages and Specific High-Risk Populations

| USPSTF Recommendation | Gaps Where Research Is Needed |
|--|--|
| <p>Screening for Depression and Suicide Risk in Children and Adolescents (October 11, 2022)</p> | <p>Studies are needed that provide more information on the following.</p> <p>Screening for major depressive disorder (MDD):</p> <ul style="list-style-type: none"> • More randomized, controlled trials (RCTs) are needed on the benefits and harms of screening for and treatment of MDD in children age 11 years or younger. • Large, good-quality RCTs are needed to better understand the overarching effects of screening for MDD on long-term health outcomes. • More research is needed in child and adolescent populations in primary care settings to study the effects of comorbid conditions on screening accuracy, MDD treatment, and benefits and harms. • More research is needed on novel systems of primary care delivery (such as collaborative care between primary and mental health care and integrated behavioral health) to maximize the benefit that children and adolescents get from screening. • More research is needed on screening and treatment in populations defined by sex, race and ethnicity, sexual orientation, and gender identity. <p>Screening for suicide risk:</p> <ul style="list-style-type: none"> • More studies are needed on the benefits and harms of screening for suicide risk in children and adolescents in primary care settings. • More information is needed on the accuracy of screening tests for suicide risk. • Treatment studies are needed in populations with screen-detected suicide risk, in all age groups. • Evidence on screening and treatment is lacking in populations defined by sex, race and ethnicity, sexual orientation, and gender identity, such as Native American/Alaska Native youth (who are at increased risk for suicide). |
| <p>Screening for Anxiety Disorders in Children and Adolescents (October 11, 2022)</p> | <p>Studies are needed that provide more information on the following.</p> <ul style="list-style-type: none"> • More RCTs are needed on the direct benefits and harms of screening for anxiety disorders among children and adolescents in primary care settings • Multiple types of anxiety disorders exist, so future research should clarify the performance of screening instruments designed to identify any anxiety disorder and instruments designed for specific anxiety disorders. • More research is needed on the effectiveness of treatment of anxiety disorders in younger children. • More research is needed on the feasibility of using screening tools for anxiety in the primary care setting. • More evidence is needed in populations defined by sex, race and ethnicity, sexual orientation, and gender identity. |

| USPSTF Recommendation | Gaps Where Research Is Needed |
|---|---|
| <p>Screening for Depression and Suicide Risk in Adults (June 20, 2023)</p> | <p>Although the evidence is clear that providing depression screening in adults and pregnant and postpartum patients is beneficial, more research is needed to ensure that all patients receive depression screening equitably. Studies are needed that provide more information on the following.</p> <ul style="list-style-type: none"> • Studies are needed that show the effect of depression screening and the most accurate screening tools for Black, Hispanic/Latino, Asian American, and Native American/Alaska Native communities and other underrepresented groups (e.g., populations defined by sex, race and ethnicity, sexual orientation, and gender identity). • Research is needed that identifies barriers to establishing adequate systems of care and how these barriers can be addressed. • Rigorous examination of how depression screening is being implemented, including the percentage of patients being screened, referred, and treated for depression, as well as patient health outcomes. <p>More evidence on whether and how screening for suicide risk can improve health outcomes is needed. There are several critical evidence gaps; more research is needed on the following.</p> <ul style="list-style-type: none"> • More research is needed to understand the epidemiology of suicide risk and to determine how primary care can improve health outcomes in persons who are at risk for suicide. • Research is needed that better defines the accuracy of single-item screeners for suicide risk, embedded within broader depression screening instruments. • Research is needed on the benefits and potential harms of targeted vs. general screening for suicide risk. • More information is needed on the potential harms of suicide risk interventions. • Treatment studies are needed in populations with screen-detected suicide risk in all age groups. • Studies targeting persons at high risk for suicide, such as Native American/Alaska Native and Hispanic/Latino persons or persons with depression, may help determine whether culturally tailored therapies are more effective in these populations. |

| USPSTF Recommendation | Gaps Where Research Is Needed |
|---|--|
| <p>Screening for Anxiety Disorders in Adults (June 20, 2023)</p> | <p>Studies are needed that provide more information on the following.</p> <ul style="list-style-type: none"> • More research is needed on the accuracy of screening tools for anxiety disorders in older adults. • More research is needed on the effectiveness of anxiety disorder screening and treatment in older adults. • More information is needed on screening and treatment in populations defined by sex, race and ethnicity, sexual orientation, and gender identity. • More research is needed, including RCTs, on the direct benefits and harms of screening for anxiety disorders in primary care settings (or similar settings). • More research is needed that demonstrates diagnostic accuracy of screening tools that are feasible for use in primary care settings, tested among primary care patients or similar populations, using valid reference standards, and determining (and replicating) optimal cutoffs for various anxiety disorders; research is needed to identify optimal screening intervals in all populations. • More research is needed on the optimal screening tools to be used in pregnant and postpartum people. • More evidence is needed on the effectiveness of anxiety disorder treatment in pregnant and postpartum people. • More research is needed on the barriers to establishing adequate systems of care related to anxiety disorders and how these barriers can be addressed. • Large epidemiological studies are needed to determine and monitor the prevalence of anxiety disorders. |



“SAMHSA works every day to improve the lives of individuals living with mental health and substance use disorders. With the Nation facing a mental health crisis, this work is as important as it has ever been. By identifying the critical gaps in the evidence—especially among those at high risk—the USPSTF is helping to shape future research that will ultimately provide evidence-based guidance on how to support mental health at every stage of life. We join the USPSTF’s call for more research so that people of all ages and backgrounds can live long, healthy lives.”

Miriam E. Delphin-Rittmon, Ph.D.
Assistant Secretary for Mental Health and Substance Use
Substance Abuse and Mental Health Services Administration

Depression in Children and Adolescents

Depression is a leading cause of disability in the United States.⁴ U.S. children and adolescents with depression typically have functional impairments in their performance at school or work, as well as in their interactions with their families and peers. Depression can also negatively affect the developmental trajectories of affected youth. Major depressive disorder (MDD) in children and adolescents is strongly associated with recurrent depression in adulthood; other mental disorders; and increased risk for suicidal ideation, suicide attempts, and suicide completion.^{8,9}

The USPSTF identified high-priority gaps related to screening for depression in children and adolescents. To fill these gaps, the USPSTF needs well-designed research that:

- Includes randomized, controlled trials (RCTs) on the benefits and harms of screening for and treatment of MDD in children age 11 years or younger.
- Includes large, good-quality RCTs to better understand the overarching effects of screening for MDD on long-term health outcomes.
- Includes child and adolescent populations in primary care settings to study the effects of comorbid conditions on screening accuracy, MDD treatment, and benefits and harms.
- Studies novel systems of primary care delivery (such as collaborative care between primary and mental health care and integrated behavioral health) to maximize the benefit that children and adolescents get from screening.
- Studies screening and treatment in populations defined by sex, race and ethnicity, sexual orientation, and gender identity.

Suicide Risk in Children and Adolescents

Suicide is the second leading cause of death among youth ages 10 to 19 years.¹⁰ Psychiatric disorders and previous suicide attempts increase suicide risk. Rates of suicide attempts and deaths vary by sex, gender, age, and race and ethnicity.^{8,9} The USPSTF identified high-priority gaps related to screening specifically for suicide risk in children and adolescents. To fill these gaps, the USPSTF needs well-designed research that:

- Includes the benefits and harms of screening for suicide risk in children and adolescents in primary care settings.
- Includes the accuracy of screening tests for suicide risk.
- Includes treatment studies in populations with screen-detected suicide risk, in all age groups.
- Includes evidence on screening and treatment in populations defined by sex, race and ethnicity, sexual orientation, and gender identity, such as Native American/Alaska Native youth (who are at increased risk for suicide).

Anxiety Disorders in Children and Adolescents

Anxiety disorder, a common mental health condition in the United States, comprises a group of related conditions characterized by excessive fear or worry that presents as emotional and physical symptoms.^{8,9,11}

The 2018–2019 National Survey of Children's Health found that 7.8% of children and adolescents ages 3 to 17 years had a current anxiety disorder.² Anxiety disorders in childhood and adolescence are associated with an increased likelihood of a future anxiety disorder or depression.^{8,9,11}

The USPSTF identified high-priority gaps related to screening for anxiety disorders in children and adolescents. To fill these gaps, the USPSTF needs well-designed research that includes:

- RCTs on the direct benefits and harms of screening for anxiety disorders among children and adolescents in primary care settings.
- Evaluations of the performance of screening instruments designed to identify any anxiety disorder and instruments designed for specific anxiety disorders, given the multiple types of anxiety disorders.
- The effectiveness of treatment of anxiety disorders in younger children.
- The feasibility of using screening tools for anxiety in the primary care setting.
- Populations defined by sex, race and ethnicity, sexual orientation, and gender identity.

Depression in Adults, Including Pregnant and Postpartum People

Major Depressive Disorder (MDD) is a common mental disorder in the United States that can have a substantial impact on an individual's life^{14,15} If left untreated, MDD can be associated with an increased risk of cardiovascular events, exacerbation of comorbid conditions, or increased mortality.^{12,14,15} In 2019, 7.8% (19.4 million) of adults experienced at least one major depressive episode; 5.3% of adults (13.1 million) experienced a major depressive episode with severe impairment.^{6,12} Depression can be a chronic condition characterized by periods of remission and recurrence, often beginning in adolescence or early adulthood. However, full recovery may occur.¹²

Depression is also common in pregnant and postpartum people and affects both the parent and the infant. Depression during pregnancy increases the risk of preterm birth, low birth weight, or small-for-gestational-age.^{16,17} Postpartum depression may interfere with parent-infant bonding.⁷

The USPSTF identified high-priority gaps related to screening for depression in adults, including pregnant and postpartum people. To fill these gaps, the USPSTF needs well-designed research that:

- Studies the effect of depression screening and the most accurate screening tools for Black, Hispanic/Latino, Asian American, and Native American/Alaska Native communities and other underrepresented groups (e.g., populations defined by sex, race and ethnicity, sexual orientation, and gender identity).
- Identifies barriers to establishing adequate systems of care and how these barriers can be addressed.
- Rigorously examines how depression screening is being implemented, including the percentage of patients being screened, referred, and treated for depression, as well as patient health outcomes.

Suicide Risk in Adults

Suicide is the 10th leading cause of death in adults (45,390 deaths [2017 data]).¹⁸ From 2001 to 2017, there was a 31% increase in suicide deaths.¹⁸ Over the last decade, there has been an 88% rate increase.¹⁹ In 2020, estimated provisional suicide deaths numbered 45,855, which was 3% less than in 2019 (47,511 deaths).^{20,21} Rates of suicide attempts and deaths vary by sex, age, and race and ethnicity.² Psychiatric disorders and previous suicide attempts increase the risk of suicide.¹² The USPSTF identified high-priority gaps related to screening specifically for suicide risk in adults, including pregnant and postpartum people.

There are several critical evidence gaps; more research is needed that:

- Helps understand the epidemiology of suicide risk and to determine how primary care can improve health outcomes in persons who are at risk for suicide.
- Better defines the accuracy of single-item screeners for suicide risk, embedded within broader depression screening instruments.

- Includes the benefits and potential harms of targeted vs. general screening for suicide risk.
- Includes the potential harms of suicide risk interventions.
- Includes treatment studies in populations with screen-detected suicide risk in all age groups.
- Includes studies targeting persons at high risk for suicide, such as Native American/Alaska Native and Hispanic/Latino persons or persons with depression, which may help determine the effectiveness of culturally tailored therapies in these populations.

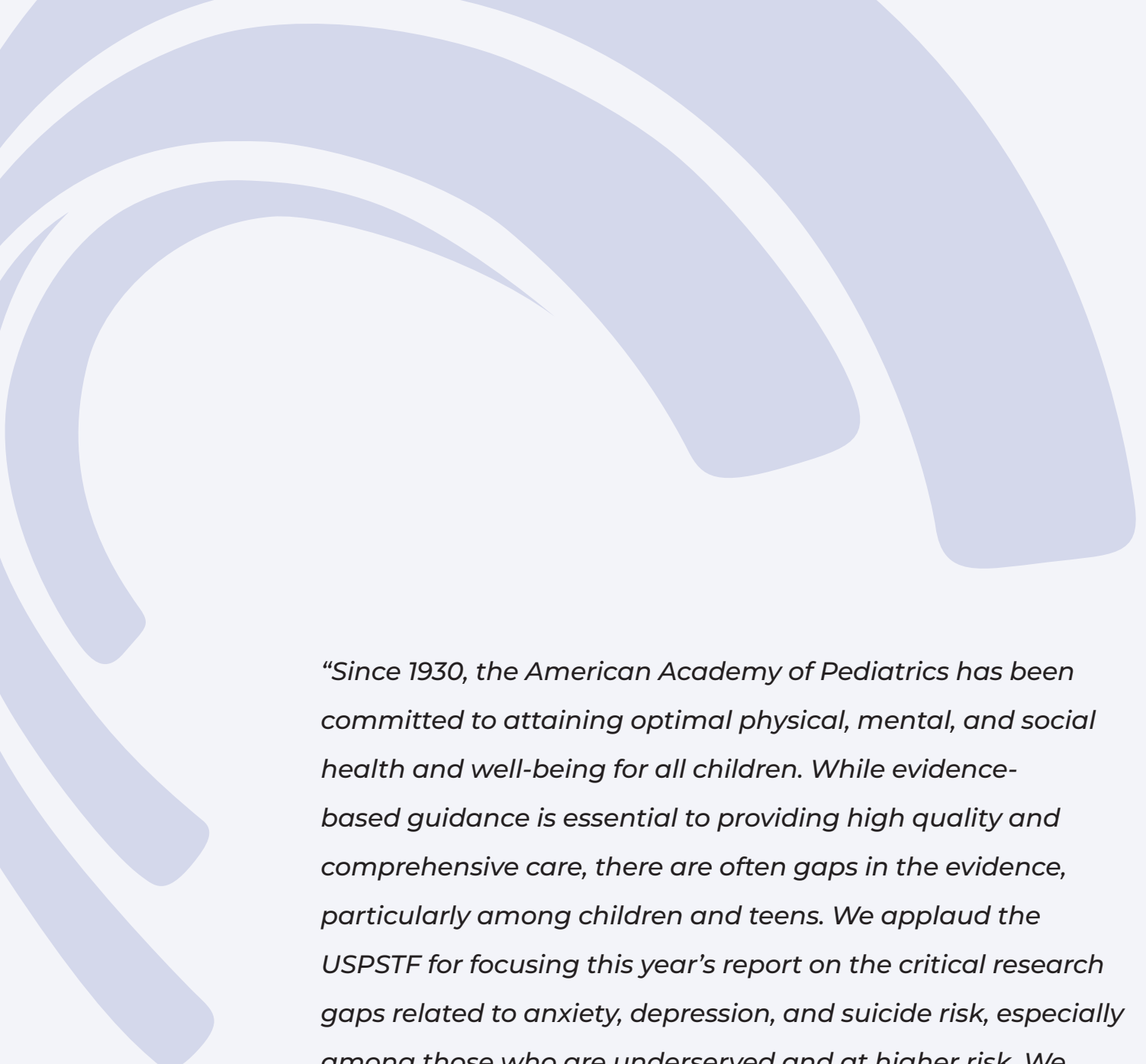
Anxiety Disorders in Adults, Including Pregnant and Postpartum People

Anxiety disorders are commonly occurring mental health conditions. Anxiety disorders include generalized anxiety disorder, social anxiety disorder, panic disorder, separation anxiety disorder, phobias, selective mutism, and anxiety disorders not otherwise specified.¹² Anxiety disorders are often unrecognized in primary care settings, and years-long delays in treatment initiation occur.^{12,22-24} Anxiety can be a chronic condition characterized by periods of remission and recurrence. However, full recovery may occur.^{12,25}

According to U.S. data collected from 2001 to 2002, the lifetime prevalence of anxiety disorders in adults was 26.4% for men and 40.4% for women.²⁶ Generalized anxiety disorder has an estimated prevalence of 8.5% to 10.5% during pregnancy and 4.4% to 10.8% postpartum.²⁴ The natural history of anxiety disorders typically begins in childhood and early adulthood, and symptoms appear to decline with age.

The USPSTF identified high-priority gaps related to screening for anxiety disorders in adults, including pregnant and postpartum people. To fill these gaps, the USPSTF needs well-designed research that includes:

- Accuracy of screening tools for anxiety disorders in older adults.
- Effectiveness of anxiety disorder screening and treatment in older adults.
- Screening and treatment in populations defined by sex, race and ethnicity, sexual orientation, and gender identity.
- Randomized controlled trials on the direct benefits and harms of screening for anxiety disorders in primary care settings (or similar settings).
- Diagnostic accuracy of screening tools that are feasible for use in primary care settings, tested among primary care patients or similar populations, using valid reference standards, and determining (and replicating) optimal cutoffs for various anxiety disorders; research is needed to identify optimal screening intervals in all populations.
- Accuracy of screening tools to be used in pregnant and postpartum people.
- Effectiveness of anxiety disorder treatment in pregnant and postpartum people.
- Barriers to establishing adequate systems of care related to anxiety disorders and how these barriers can be addressed.
- Large epidemiological studies to determine and monitor the prevalence of anxiety disorders.



“Since 1930, the American Academy of Pediatrics has been committed to attaining optimal physical, mental, and social health and well-being for all children. While evidence-based guidance is essential to providing high quality and comprehensive care, there are often gaps in the evidence, particularly among children and teens. We applaud the USPSTF for focusing this year’s report on the critical research gaps related to anxiety, depression, and suicide risk, especially among those who are underserved and at higher risk. We hope future research will address these gaps, including the role of childhood experiences and relationships in the evolution of mental health problems and substance use disorders, and how those caring for children can effectively intervene, so we have the knowledge we need to keep every child healthy.”

Sandy L. Chung, M.D., FAAP
President
American Academy of Pediatrics

THE USPSTF IN 2023 AND OTHER HIGHLIGHTS

Over the past year, the Task Force members continued working on a full portfolio of topics. The current USPSTF library includes 89 preventive service recommendation statements, with 143 specific recommendation grades. Many recommendation statements include multiple recommendation grades for different populations. In fiscal year 2023 (October 1, 2022, to September 30, 2023), the Task Force accomplished the following:

- Received 40 nominations for new topics and 9 nominations to reconsider or update existing topics
- Posted 9 draft research plans for public comment
- Posted 10 draft recommendation statements and 10 draft evidence reports for public comment
- Published 13 final recommendation statements with 11 recommendation grades in medical journals; posted 11 final evidence reports
- For a listing of all final USPSTF recommendations released since the last report, see **Appendix D**.

Of the Task Force's portfolio of **88 topics**, the following posted or published this year.

| Draft Research Plan | Final Research Plan | Draft Recommendation | Final Recommendation |
|---|---|---|---|
| <input type="checkbox"/> Interventions to Prevent Perinatal Depression | <input type="checkbox"/> Interventions to Prevent Perinatal Depression | <input type="checkbox"/> Folic Acid to Prevent Neural Tube Defects | <input type="checkbox"/> Folic Acid to Prevent Neural Tube Defects |
| <input type="checkbox"/> Screening for Anal Cancer | <input type="checkbox"/> Screening for Chronic Kidney Disease | <input type="checkbox"/> Preexposure Prophylaxis to Prevent Acquisition of HIV | <input type="checkbox"/> Hormone Therapy for the Prevention of Chronic Conditions in Postmenopausal Persons |
| <input type="checkbox"/> Screening for Chronic Kidney Disease | <input type="checkbox"/> Screening for Intimate Partner Violence & Abuse of Older & Vulnerable Adults | <input type="checkbox"/> Screening for Breast Cancer | <input type="checkbox"/> Preexposure Prophylaxis to Prevent Acquisition of HIV |
| <input type="checkbox"/> Screening for <i>Helicobacter Pylori</i> Infection | <input type="checkbox"/> Screening for Syphilis Infection in Pregnant Persons | <input type="checkbox"/> Screening for Hypertensive Disorders of Pregnancy | <input type="checkbox"/> Screening for Anxiety in Adults |
| <input type="checkbox"/> Screening for Intimate Partner Violence & Abuse of Older & Vulnerable Adults | <input type="checkbox"/> Vitamin D & Calcium Supplementation to Prevent Fractures & Falls | <input type="checkbox"/> Screening for Latent Tuberculosis | <input type="checkbox"/> Screening for Anxiety in Children & Adolescents |
| <input type="checkbox"/> Screening for Syphilis in Pregnant Persons | | <input type="checkbox"/> Screening for Lipid Disorders in Children & Adolescents | <input type="checkbox"/> Screening for Depression & Suicide Risk in Adults |
| <input type="checkbox"/> Prevention of Lynch Syndrome–Related Cancer | | <input type="checkbox"/> Screening for Skin Cancer | <input type="checkbox"/> Screening for Depression & Suicide Risk in Children & Adolescents |
| <input type="checkbox"/> Vitamin D & Calcium Supplementation to Prevent Fractures & Falls | | <input type="checkbox"/> Screening for Speech & Language Delay & Disorders in Children | <input type="checkbox"/> Screening for Genital Herpes Infection |
| <input type="checkbox"/> Weight Loss Interventions in Adults | | <input type="checkbox"/> Screening & Preventive Interventions for Oral Health in Adults | <input type="checkbox"/> Screening for Hypertensive Disorders of Pregnancy |
| | | <input type="checkbox"/> Screening & Preventive Interventions for Oral Health in Children 5 & Older | <input type="checkbox"/> Screening for Latent Tuberculosis |
| | | | <input type="checkbox"/> Screening for Lipid Disorders in Children & Adolescents |
| | | | <input type="checkbox"/> Screening for Skin Cancer |
| | | | <input type="checkbox"/> Screening for Sleep Apnea in Adults |

Partner Engagement to Develop and Disseminate Recommendations

The USPSTF continued to work with its partner organizations to enhance the accuracy and relevance of its recommendations, disseminate the work of the USPSTF, and facilitate implementation of the Task Force recommendations into practice. USPSTF partner organizations include federal agencies that are stakeholders in the process and dissemination and implementation partners that represent primary care clinicians, consumers, and other stakeholders involved in the delivery of primary care.

Partners are a powerful vehicle for ensuring that the nation's primary care workforce remains up to date on USPSTF recommendations. The complete list of partners is available in **Appendices B** and **C**.

Efforts to Reduce Disparities in Healthcare

The Task Force is committed to promoting antiracism and health equity in preventive care by confronting these issues throughout its recommendation development process. Following the publication of its paper, "Actions to Transform U.S. Preventive Services Task Force Methods to Mitigate Systemic Racism in Clinical Preventive Services,"^{28,29} the USPSTF has worked to develop a health equity framework. This health equity framework is being used to help the Task Force more consistently approach the recommendation development for all populations that experience inequities in morbidity or mortality from disease, including but not limited to inequities related to race, ethnicity, sex, and gender.

The health equity framework provides a checklist of key items addressing how health equity issues can be approached at each phase of the USPSTF recommendation development process:

- Topic nomination, selection, and prioritization
- Work plan development
- Evidence review development
- Evidence deliberation
- Recommendation statement development
- Recommendation(s) dissemination

The Task Force has begun to evaluate these new approaches to its recommendation process across several topics. Experiences from the ongoing health equity pilot will inform both this framework and USPSTF priorities for additional areas of future methods work.

Dissemination Impact of USPSTF Recommendations

The USPSTF engages in several activities to disseminate its recommendations to increase their uptake. During the past fiscal year (October 1, 2022, to September 30, 2023), clinicians, patients, and other stakeholders viewed the USPSTF recommendations via the USPSTF website, the *Journal of the American Medical Association (JAMA)*, and the Prevention TaskForce app as follows:



Email Outreach



110,981

Task Force email list subscribers notified regularly about topics and other activities



Digital Impact



25,283,389

Total page views of the Task Force website



6,802,473

Total unique visitors to the Task Force website

1,186,918 visits

Home Page

598,945 visits

A and B Recommendations

591,751 visits

Colorectal Cancer Topic Page

Top visited pages of the Task Force website



Clinical Practice Impact



295,697

Total page views of Task Force articles published on JAMA website



97,415

Number of new Prevention TaskForce app downloads



1,200,857

Total number of Prevention TaskForce app downloads

Efforts to Fill USPSTF Research Gaps

For each recommendation, regardless of whether the recommendation receives a letter grade or has insufficient evidence and receives an “I statement,” the USPSTF routinely calls attention to research gaps and highlights areas where evidence is needed for specific populations. The National Institutes of Health (NIH) considers these evidence gaps and often uses this information when developing future funding opportunities and other collaborative research efforts.

In 2020, AHRQ and NIH’s Office of Disease Prevention commissioned a National Academies of Sciences, Engineering, and Medicine report titled, “Closing Evidence Gaps in Clinical Prevention,” with two aims:

1. Propose a taxonomy to consistently describe evidence gaps in clinical prevention research.
2. Propose ways for research funders and guideline committees to facilitate research to close important gaps in prevention.

The objective of the report was to accelerate research to close important research gaps focusing on all three types of USPSTF recommendations (i.e., screening, behavioral counseling interventions, and preventive medications).³⁰

As a result, AHRQ, NIH’s Office of Disease Prevention, and the USPSTF have been collaborating to improve how evidence gaps are classified, prioritized, and communicated. This effort yielded the development of a pilot design for articulating evidence gaps and future research needs in USPSTF recommendation statements. This work includes two processes to clearly communicate the most important gaps:

- The first process includes reviewing several public health criteria, including population effects, time urgency, adoptability, and equity, to determine research gaps for an individual recommendation topic.
- The second process includes using an expansion of the PICOTS (patient population, intervention, comparator, outcome, time, and setting) framework to provide more detail on key research studies that are needed to address the evidence gaps.

This work will be available on the USPSTF website in upcoming final recommendation statements. It will provide a systematic approach to classifying and prioritizing evidence gaps for funders and researchers, potentially reducing the time needed for study results to lead to improved health. In alignment with the USPSTF’s commitment to advancing health equity, the Task Force hopes this systematic approach to communicating evidence gaps for funders and researchers will improve filling evidence gaps that affect health inequities. The USPSTF will revise and finalize best practices for articulating evidence gaps and future research needs in the upcoming year.

THE USPSTF IN 2024

In the coming 12 months, it is expected that the USPSTF will continue to:

Develop and Release New Recommendation Statements

- Work on more than 29 topics that are in progress
- Work on 5 topics nominated for consideration through the public topic nomination process
- Post 8 draft research plans and 12 draft recommendation statements and evidence reports for public comment
- Publish 9 final recommendation statements

Coordinate With Partners to Develop and Disseminate Recommendations

- Coordinate with the USPSTF Dissemination and Implementation Partners and Federal Liaisons to solicit input and disseminate the recommendations to primary care clinicians and other stakeholders to achieve the benefits of screening tests, behavioral counseling, and preventive medications to improve health outcomes and reduce disparities.

Address Research Gaps

- Continue close collaboration with AHRQ and NIH's Office of Disease Prevention to revise best practices for articulating evidence gaps and future research needs.
- Prepare the 14th Annual Report to Congress on high-priority evidence gaps (see **Appendix E** for a list of prior reports).

The USPSTF appreciates the opportunity to report on its activities, to highlight critical evidence gaps, and to recommend important new areas for research in clinical preventive services. The members of the Task Force look forward to their ongoing work to improve the health of people nationwide.

References

1. Ngo-Metzger Q, Moyer V, Grossman D, et al. Conflicts of interest in clinical guidelines: update of U.S. Preventive Services Task Force policies and procedures. *Am J Prev Med*. 2018;54(1S1):S70-S80.
2. Epling JW, Borsky AE, Gerteis J. Improvements to the US Preventive Services Task Force recommendation statement. *JAMA*. 2019;322(12):1143-1144.
3. Bibbins-Domingo K, Whitlock E, Wolff T, et al. Developing recommendations for evidence-based clinical preventive services for diverse populations: methods of the US Preventive Services Task Force. *Ann Intern Med*. 2017;166(8):565-571.
4. Centers for Disease Control and Prevention. About Mental Health. Reviewed April 25, 2023. Accessed July 12, 2023. <https://www.cdc.gov/mentalhealth/learn/index.htm>
5. Merikangas KR, He JP, Burstein M, et al. Lifetime prevalence of mental disorders in U.S. adolescents: results from the National Comorbidity Survey Replication--Adolescent Supplement. *J Am Acad Child Adolesc Psychiatry*. 2010;49(10):980-989.
6. Substance Abuse and Mental Health Services Administration. *Key Substance Use and Mental Health Indicators in the United States: Results From the 2018 National Survey on Drug Use and Health*. HHS Publication No. PEP19-5068, NSDUH Series H-54. Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration; 2019.
7. National Institute of Mental Health. Chronic Illness and Mental Health: Recognizing and Treating Depression. Revised 2021. Accessed July 12, 2023. <https://www.nimh.nih.gov/health/publications/chronic-illness-mental-health>
8. Viswanathan M, Wallace IF, Middleton JC, et al. *Screening for Depression, Anxiety, and Suicide Risk in Children and Adolescents: An Evidence Review for the U.S. Preventive Services Task Force*. Evidence Synthesis No. 221. Rockville, MD: Agency for Healthcare Research and Quality; 2022.
9. Viswanathan M, Wallace IF, Cook Middleton J, et al. Screening for anxiety in children and adolescents: evidence report and systematic review for the US Preventive Services Task Force. *JAMA*. 2022;328(14):1445-1455.
10. Heron M. Deaths: Leading Causes for 2019. *Natl Vital Stat Rep*. 2021;70(9):1-114.
11. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders*. 5th ed. Arlington, VA: American Psychiatric Association; 2013.
12. O'Connor E, Henninger M, Perdue LA, Coppola EL, Thomas R, Gaynes BN. *Screening for Depression, Anxiety, and Suicide Risk in Adults: A Systematic Evidence Review for the U.S. Preventive Services Task Force*. Evidence Synthesis No. 223. Rockville, MD: Agency for Healthcare Research and Quality; 2022.
13. Mayo Clinic. Depression (Major Depressive Disorder). Updated October 14, 2022. Accessed July 12, 2023. <https://www.mayoclinic.org/diseases-conditions/depression/symptoms-causes/syc-20356007>
14. Gilman SE, Sucha E, Kingsbury M, Horton NJ, Murphy JM, Colman I. Depression and mortality in a longitudinal study: 1952-2011. *CMAJ*. 2017;189(42):E1304-E1310.
15. Kessler RC, Merikangas KR, Wang PS. Prevalence, comorbidity, and service utilization for mood disorders in the United States at the beginning of the twenty-first century. *Annu Rev Clin Psychol*. 2007;3:137-58.

16. Szegda K, Markenson G, Bertone-Johnson ER, Chasan-Taber L. Depression during pregnancy: a risk factor for adverse neonatal outcomes? A critical review of the literature. *J Matern Fetal Neonatal Med*. 2014;27(9):960-967.
17. Jarde A, Morais M, Kingston D, et al. Neonatal outcomes in women with untreated antenatal depression compared with women without depression: a systematic review and meta-analysis. *JAMA Psychiatry*. 2016;73(8):826-837.
18. Centers for Disease Control and Prevention. WISQARS—Web-Based Injury Statistics Query and Reporting System. Accessed September July 12, 2023. <https://www.cdc.gov/injury/wisqars/index.html>
19. Hedegaard H, Curtin SC, Warner M. Suicide mortality in the United States, 1999-2019. *NCHS Data Brief*. 2021 Feb;(398):1-8.
20. Curtin S, Hedegaard H, Ahmad FB. Provisional Numbers and Rates of Suicide by Month and Demographic Characteristics: United States, 2020. Published November 2021. Accessed July 12, 2023. <https://www.cdc.gov/nchs/data/vsrr/VSRR016.pdf>
21. Stone DM, Jones CM, Mack KA. Changes in suicide rates—United States, 2018–2019. *MMWR Morb Mortal Wkly Rep*. 2021;70(8):261-268.
22. Mitchell AJ, Vaze A, Rao S. (2009). Clinical diagnosis of depression in primary care: a meta-analysis. *Lancet*. 2009;374(9690):609-619.
23. Roberge P, Normand-Lauzière F, Raymond I, et al. Generalized anxiety disorder in primary care: mental health services use and treatment adequacy. *BMC Fam Pract*. 2015;16:146.
24. Wang PS, Angermeyer M, Borges G. Delay and failure in treatment seeking after first onset of mental disorders in the World Health Organization's World Mental Health Survey Initiative. *World Psychiatry*. 2007;6(3):177-185.
25. Bandelow B, Michaelis S. Epidemiology of anxiety disorders in the 21st century. *Dialogues Clin Neurosci*. 2015;17(3):327-335.
26. Kessler RC, Petukhova M, Sampson NA, Zaslavsky AM, Wittchen HU. Twelve-month and lifetime prevalence and lifetime morbid risk of anxiety and mood disorders in the United States. *Int J Methods Psychiatr Res*. 2012;21(3):169-184
27. Misri S, Abizadeh J, Sanders S, Swift E. Perinatal generalized anxiety disorder: assessment and treatment. *J Womens Health (Larchmt)*. 2015;24(9):762-770.
28. Lin JS, Hoffman L, Bean SI, et al. Addressing racism in preventive services: methods report to support the US Preventive Services Task Force. *JAMA*. 2021;326(23):2412-2420.
29. US Preventive Services Task Force; Davidson KW, Mangione CM, Barry MJ, et al. Actions to transform US Preventive Services Task Force methods to mitigate systemic racism in clinical preventive services. *JAMA*. 2021;326(23):2405-2411.
30. National Academies of Sciences, Engineering, and Medicine. *Closing Evidence Gaps in Clinical Prevention*. Washington, DC: The National Academies Press; 2022.



APPENDICES

Appendix A: Members of the USPSTF (2023)



Michael J. Barry, M.D., Chair

Dr. Barry is the director of the Informed Medical Decisions Program in the Health Decision Sciences Center at Massachusetts General Hospital. He is also a professor of medicine at Harvard Medical School and a primary care clinician at Massachusetts General Hospital.



Wanda K. Nicholson, M.D., M.P.H., M.B.A., Vice Chair

Dr. Nicholson is a senior associate dean for diversity, equity, and inclusion and professor of prevention and community health at the Milken Institute School of Public Health at the George Washington University. She is a member and vice-president-elect of the board of directors of the American Board of Obstetrics & Gynecology; editor for health equity, diversity, and inclusion for the American Journal of Obstetrics & Gynecology; past chair of the American College of Obstetricians and Gynecologists (ACOG) Diversity, Equity, and Inclusive Excellence Workgroup; and an immediate past member of the executive board of ACOG.



Michael Silverstein, M.D., M.P.H., Vice Chair

Dr. Silverstein is the George Hazard Crooker University professor of health services, policy, and practice at the Brown University School of Public Health and the director of Brown University's Hassenfeld Child Health Innovation Institute, which is charged with eliminating health inequities in pregnancy and childhood for Rhode Island families.



David Chelmow, M.D., Member

Dr. Chelmow is the Leo J. Dunn professor of obstetrics and gynecology and chair of the department of obstetrics and gynecology at Virginia Commonwealth University School of Medicine in Richmond, Virginia. He has been chair of the department since 2010 and recently completed service as interim dean for the School of Medicine.



Tumaini Rucker Coker, M.D., M.B.A., Member

Dr. Coker is division head of General Pediatrics and professor of pediatrics at the University of Washington School of Medicine and Seattle Children's. She serves as the co-director of the University of Washington's Child Health Equity Research Fellowship, which is funded by the National Institutes of Health.



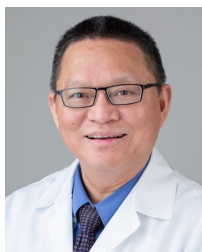
Esa M. Davis, M.D., M.P.H., Member

Dr. Davis is a professor of medicine and family and community medicine, the associate vice president for community health, and the senior associate dean of population and community medicine at the University of Maryland School of Medicine. She is the lead health equity strategist for the University of Maryland Institute for Health Computing. Dr. Davis is also the director of the Transforming Biomedical Research and Academic Faculty Through Leadership Opportunities, Training, and Mentorship (TRANSFORM) program.



Katrina Donahue, M.D., M.P.H., Member

Dr. Donahue is a professor and vice chair of research at the University of North Carolina at Chapel Hill Department of Family Medicine. She is a family physician and senior research fellow at the Cecil G. Sheps Center for Health Services Research and the co-director of the North Carolina Network Consortium, a meta-network of six practice-based research networks and four academic institutions in North Carolina.



Li Li, M.D., Ph.D., M.P.H., Member

Dr. Li is a family physician and the Walter M. Seward professor and the chair of family medicine at the University of Virginia (UVA) School of Medicine. He is also the director of population health at UVA Health and leader of the Cancer Prevention and Population Health program at the UVA Comprehensive Cancer Center.



Gbenga Ogedegbe, M.D., M.P.H., Member

Dr. Ogedegbe is the founding director of the Institute for Excellence in Health Equity at NYU Langone Health. He is the Dr. Adolph and Margaret Berger professor of medicine and population health at NYU Grossman School of Medicine. Dr. Ogedegbe is a member of the National Academy of Medicine.



Goutham Rao, M.D., FAHA, Member

Dr. Rao is the chair of the Department of Family Medicine and Community Health and chief clinician experience officer for the University Hospitals Health System. He practices family medicine and leads the medical obesity treatment program. He also serves as division chief of Family Medicine at UH Rainbow Babies & Children's Hospital. In addition, Dr. Rao is the Jack H. Medalie professor and chair of the Department of Family Medicine and Community Health at Case Western Reserve University School of Medicine.



John M. Ruiz, Ph.D., Member

Dr. Ruiz is a professor of clinical psychology in the Department of Psychology at the University of Arizona, where he is also director of diversity, equity, and inclusivity.



James Stevermer, M.D., M.S.P.H., Member

Dr. Stevermer is the vice chair for clinical affairs and Paul Revare, MD, professor of family and community medicine at the University of Missouri (MU). He is the medical director of MU Health Care Family Medicine–Callaway Physicians, where he practices and teaches rural primary care. His scholarly activities focus on dissemination and evidence-based medicine.



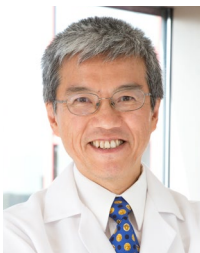
Joel Tsevat, M.D., M.P.H., Member

Dr. Tsevat is a general internist, professor of medicine, and Joaquin G. Cigarroa, Jr., M.D., distinguished chair in the Joe R. and Teresa Lozano Long School of Medicine at The University of Texas Health Science Center at San Antonio.



Sandra Millon Underwood, R.N., Ph.D., Member

Dr. Underwood is a professor emerita in the College of Nursing at the University of Wisconsin-Milwaukee. She is a nurse researcher, educator, and clinician with 40 years of experience in the design, implementation, and evaluation of evidence-based programs that aim to foster diversity, inclusion, and health equity, and improve health outcomes among diverse, underserved, at-risk populations.



John B. Wong, M.D., Member

Dr. Wong is vice chair for academic affairs, chief of the Division of Clinical Decision Making, and a primary care clinician in the Department of Medicine at Tufts Medical Center. He is also a professor of medicine at Tufts University School of Medicine.

Appendix B: USPSTF Dissemination and Implementation Partner Organizations

AARP

American Academy of Family Physicians

American Academy of Pediatrics

American Academy of Physician Associates

American Association of Nurse Practitioners

American College of Nurse-Midwives

American College of Obstetricians and Gynecologists

American College of Physicians

American College of Preventive Medicine

American Geriatrics Society

American Medical Association

American Osteopathic Association

American Psychological Association

America's Health Insurance Plans

Association of American Indian Physicians

Business Group on Health

Canadian Task Force on Preventive Health Care

Community Preventive Services Task Force

GLMA: Health Professionals Advancing LGBTQ+ Equality

National Association of Pediatric Nurse Practitioners

National Committee for Quality Assurance

National Council of Asian Pacific Islander Physicians

National Hispanic Medical Association

National Medical Association/Cobb Institute

Patient-Centered Outcomes Research Institute

Appendix C: Federal Liaisons to the USPSTF

Centers for Disease Control and Prevention

Centers for Medicare & Medicaid Services

Department of Defense Military Health System

Department of Health and Human Services, Office of Minority Health

Department of Veterans Affairs National Center for Health Promotion and Disease Prevention

Health Resources and Services Administration

Indian Health Service

National Cancer Institute

National Institutes of Health

Office of the Assistant Secretary for Health, Office of Disease Prevention and Health Promotion

Substance Abuse and Mental Health Services Administration

U.S. Food and Drug Administration

Appendix D: USPSTF Final Recommendations Published October 2022–September 2023

Over the past year, the members of the Task Force continued working on a full portfolio of topics. It published 13 final recommendation statements with 19 recommendation grades in a peer-reviewed journal between October 1, 2022, and September 30, 2023. For a complete listing of all current USPSTF recommendations, see the USPSTF website (<https://www.uspreventiveservicestaskforce.org/>).

| Topic | Recommendation |
|---|--|
| Folic Acid Supplementation to Prevent Neural Tube Defects | The USPSTF recommends that all persons planning to or who could become pregnant take a daily supplement containing 0.4 to 0.8 mg (400 to 800 µg) of folic acid. (Grade A) |
| Hormone Therapy for the Primary Prevention of Chronic Conditions in Postmenopausal Persons | <p>The USPSTF recommends against the use of combined estrogen and progestin for the primary prevention of chronic conditions in postmenopausal persons. (Grade D)</p> <p>The USPSTF recommends against the use of estrogen alone for the primary prevention of chronic conditions in postmenopausal persons who have had a hysterectomy. (Grade D)</p> |
| Preexposure Prophylaxis to Prevent Acquisition of HIV | The USPSTF recommends that clinicians prescribe preexposure prophylaxis with effective antiretroviral therapy to persons who are at increased risk of HIV acquisition to decrease the risk of acquiring HIV. (Grade A) |
| Screening for Anxiety in Children and Adolescents | <p>The USPSTF recommends screening for anxiety in children and adolescents ages 8 to 18 years. (Grade B)</p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for anxiety in children age 7 years or younger. (I statement)</p> |
| Screening for Anxiety Disorders in Adults | <p>The USPSTF recommends screening for anxiety disorders in adults, including pregnant and postpartum persons. (Grade B)</p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for anxiety disorders in older adults. (I statement)</p> |
| Screening for Depression and Suicide Risk in Children and Adolescents | <p>The USPSTF recommends screening for major depressive disorder (MDD) in adolescents ages 12 to 18 years. (Grade B)</p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for MDD in children age 11 years or younger. (I statement)</p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for suicide risk in children and adolescents. (I statement)</p> |

| Topic | Recommendation |
|--|---|
| Screening for Depression and Suicide Risk in Adults | <p>The USPSTF recommends screening for depression in the adult population, including pregnant and postpartum persons, as well as older adults. (Grade B)</p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for suicide risk in the adult population, including pregnant and postpartum persons, as well as older adults. (I statement)</p> |
| Screening for Latent Tuberculosis Infection in Adults | The USPSTF recommends screening for latent tuberculosis infection in populations at increased risk. (Grade B) |
| Screening for Lipid Disorders in Children and Adolescents | The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for lipid disorders in children and adolescents age 20 years or younger. (I statement) |
| Screening for Hypertensive Disorders of Pregnancy | The USPSTF recommends screening for hypertensive disorders in pregnant persons with blood pressure measurements throughout pregnancy. (Grade B) |
| Screening for Obstructive Sleep Apnea in Adults | The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for obstructive sleep apnea in the general adult population. (I statement) |
| Screening for Skin Cancer | The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of visual skin examination by a clinician to screen for skin cancer in adolescents and adults. (I statement) |
| Serologic Screening for Genital Herpes Infection | The USPSTF recommends against routine serologic screening for genital herpes simplex virus infection in asymptomatic adolescents and adults, including pregnant persons. (Grade D) |

Appendix E: Prior Annual Reports to Congress on High-Priority Evidence Gaps for Clinical Preventive Services (2011–2022)

The table below lists the prior annual Reports to Congress on High-Priority Evidence Gaps for Clinical Preventive Services. Electronic versions of each report are available on the USPSTF website at <https://www.uspreventiveservicestaskforce.org/uspstf/about-uspstf/reports-congress>.

| Year | Title | Theme |
|-------------|--|---|
| 2022 | Twelfth Annual Report to Congress on High-Priority Evidence Gaps for Clinical Preventive Services | Recent evidence gaps related to promoting healthy behaviors across the lifespan |
| 2021 | Eleventh Annual Report to Congress on High-Priority Evidence Gaps for Clinical Preventive Services | Health equity in cardiovascular disease and cancer prevention |
| 2020 | Tenth Annual Report to Congress on High-Priority Evidence Gaps for Clinical Preventive Services | Child and adolescent health and health inequities |
| 2019 | Ninth Annual Report to Congress on High-Priority Evidence Gaps for Clinical Preventive Services | Mental health, substance use, and violence prevention |
| 2018 | Eighth Annual Report to Congress on High-Priority Evidence Gaps for Clinical Preventive Services | Cancer prevention and cardiovascular health |
| 2017 | Seventh Annual Report to Congress on High-Priority Evidence Gaps for Clinical Preventive Services | Recent evidence gaps |
| 2016 | Sixth Annual Report to Congress on High-Priority Evidence Gaps for Clinical Preventive Services | Recent evidence gaps |
| 2015 | Fifth Annual Report to Congress on High-Priority Evidence Gaps for Clinical Preventive Services | Women's health |
| 2014 | Fourth Annual Report to Congress on High-Priority Evidence Gaps for Clinical Preventive Services | Child and adolescent health |
| 2013 | Third Annual Report to Congress on High-Priority Evidence Gaps for Clinical Preventive Services | Older adult health |
| 2012 | Second Annual Report to Congress on High-Priority Evidence Gaps for Clinical Preventive Services | Recent evidence gaps |
| 2011 | First Annual Report to Congress on High-Priority Evidence Gaps for Clinical Preventive Services | Recent evidence gaps |

